

TOF beam test (JUL 11 2003)

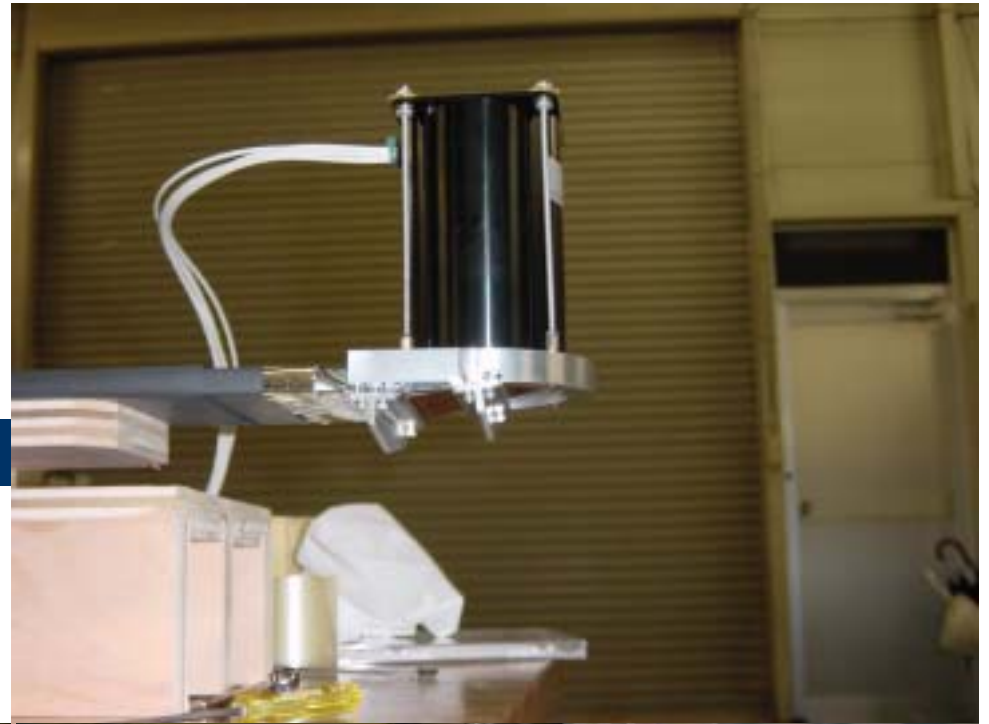
SASAKI Makoto



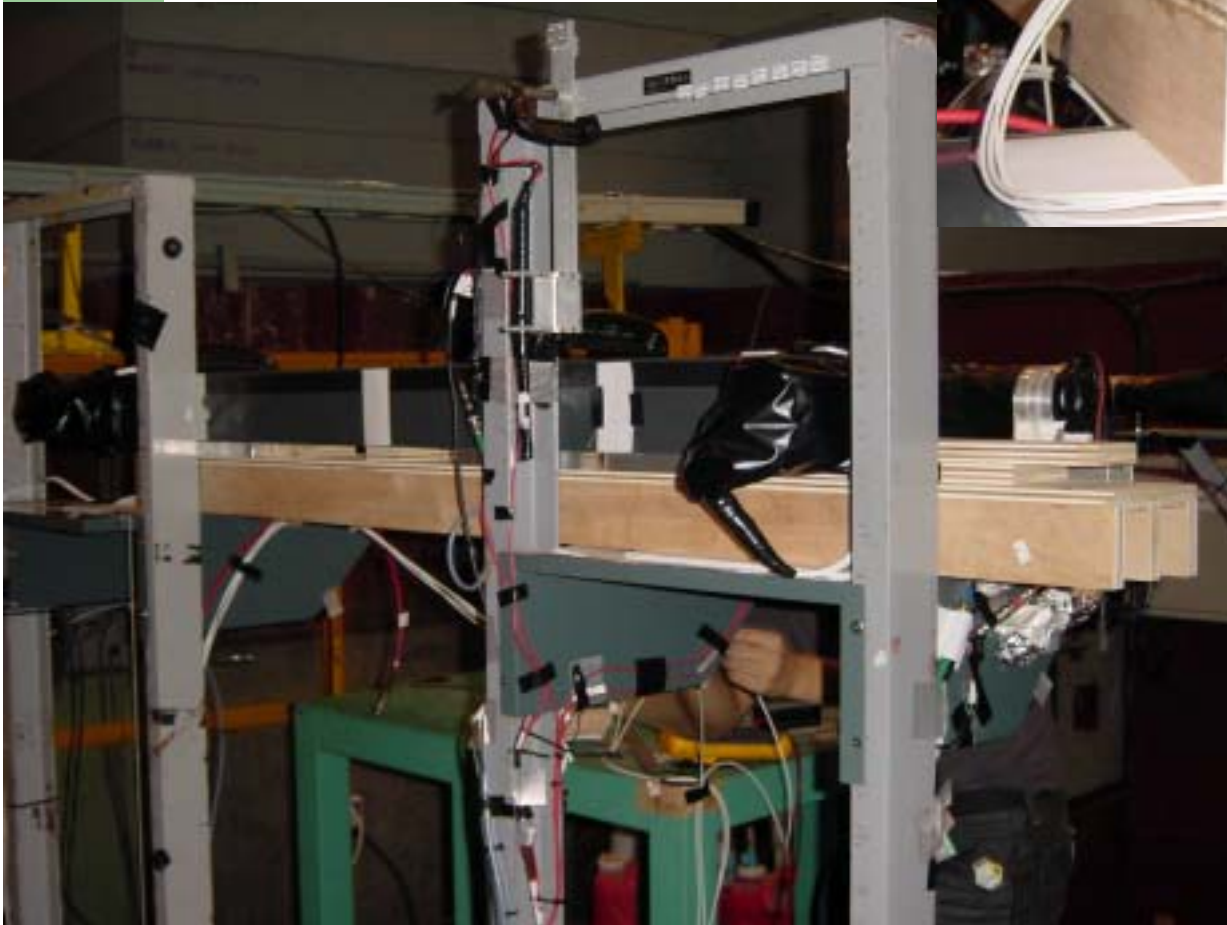
Set-up

- Using commercial ADC and TDC
PHILLIPS 7186(TDC), LECROY 2249W(ADC)
- Anode signal Pulse Height 1V for MIPs
(at center of the counter)
- Discriminator Threshold -25mV
- One counter, Two configurations, Three measured points, four different momentums
with reflector on scintillator, without reflector on scintillator
center ($z=0\text{cm}$), left ($z=-42.5\text{cm}$), right ($z=+42.5\text{cm}$)*
 $0.5\text{GeV}/c$, $1.0\text{GeV}/c$, $1.5\text{GeV}/c$, $2.0\text{GeV}/c$
- Taking 30k events for each points and momentums
- Trigger and other set-up were almost same as the MTOF beam test set-up

TOF assembly

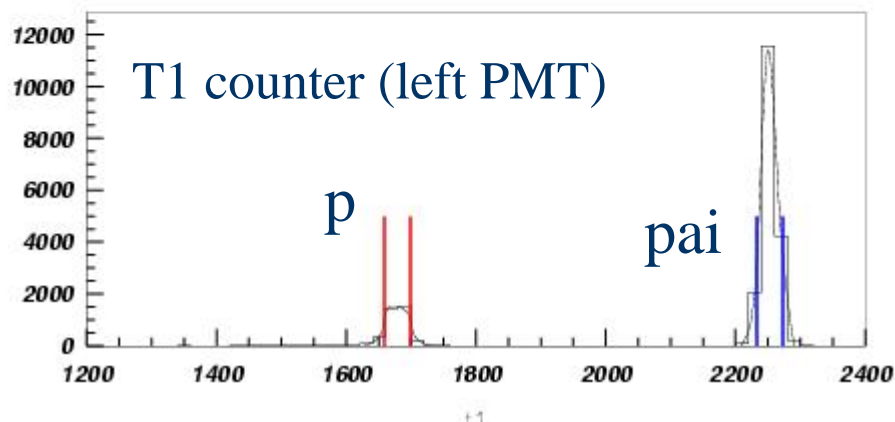
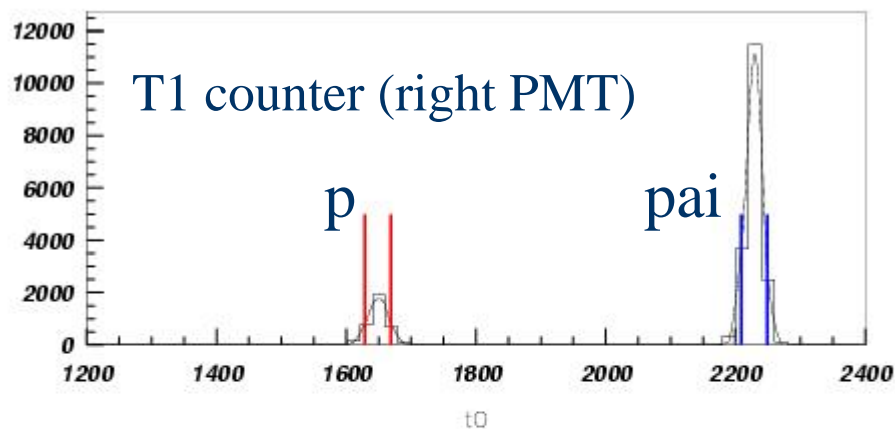


TOF install

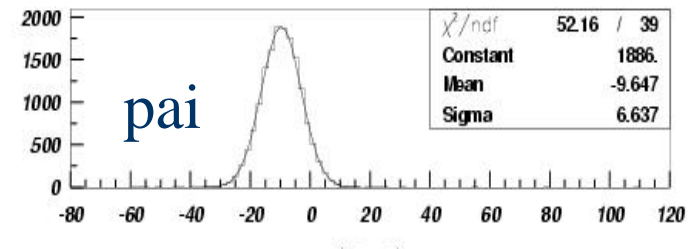
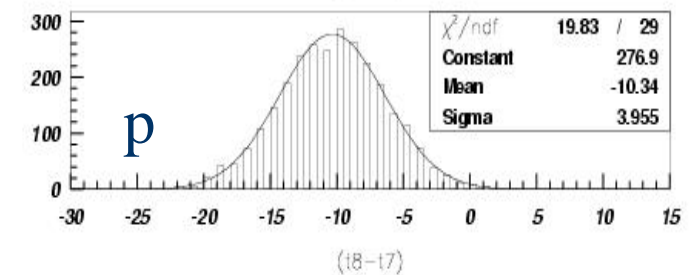
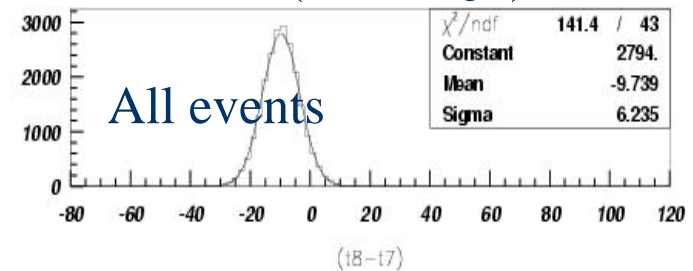


Z=0, Momentum=0.5GeV/c, w/reflector

TDC count



TOF ($T_{\text{left}} - T_{\text{right}}$)



TOF single counter resolution

(Z=0,w/reflector)

	Total	P	Pai
0.5GeV/c	77.94 ps	49.44 ps	82.96 ps
1.0GeV/c	78.69 ps	71.11 ps	84.96 ps
1.5GeV/c	82.05 ps	81.23 ps	83.78 ps
2.0GeV/c	84.05 ps	83.64 ps	84.74 ps